Big Sandy Energy Project

This is the third newsletter prepared and distributed for the Big Sandy Energy Project by the Bureau of Land Management (BLM) and Western Area Power Administration (Western). Since the last newsletter was distributed in August, the BLM and Western hosted public information workshops in Wikieup and Peach Springs, Ariz.; ground water pump tests were conducted by the project proponent under the guidance of both project and agency hydrologists; a meeting was held with the U.S. Fish and Wildlife Service (USFWS) to discuss potential project effects to southwestern willow flycatchers, an endangered bird species found living along the Big Sandy River near the proposed project; and the project proponent has made several modifications to the proposed project description. Additional information regarding each of these activities is provided in this newsletter. Copies of previous newsletters, as well as other information regarding the Big Sandy Energy Project, are available for viewing on Western's Big Sandy Energy Project web site **(www.wapa.gov/interconn/intsandy.htm)** or by contacting the Western or BLM project managers listed on page 7.

Project background

Caithness Big Sandy, LLC (Caithness), proposes to construct the Big Sandy Energy Project, a 720-megawatt (MW) natural gas-fired generating facility, on private lands near Wikieup, Arizona. Caithness, a private energy development and operating company, has applied to Western for an interconnection with the existing Mead-Phoenix Project 500-kilovolt (kV) Transmission Line, and applied for permits to build portions of a natural gas supply pipeline along U.S. Highway 93 to Interstate 40 and a permanent access road and water pipeline system across public lands managed by the Bureau of Land Management (BLM).

Based on Caithness' applications, Western and BLM have determined that they must prepare an environmental impact statement (EIS) to comply with the requirements of the National Environmental Policy Act (NEPA), and together will be co-lead agencies for the preparation of this EIS. The Arizona Department of Transportation (ADOT), Mohave County (through the Planning and Zoning Department), Arizona Game and Fish Department (AGFD), USFWS, Arizona Department of Water Resources (ADWR), and the Hualapai Tribe have agreed to be cooperating agencies for the preparation of the EIS. URS Corporation (URS) has been selected by Western and BLM to prepare the EIS, which will study the potential impacts to the human and natural environment from building and operating all aspects of the Big Sandy Energy Project, including the gas-fired generation facility, the electrical switchyard, the natural gas supply pipeline, the ground water supply well field and pipelines, an access road, possible agricultural activities

About the Big Sandy Energy Project

The Big Sandy Energy Project would be a "merchant plant," meaning it would not be owned by a utility or by a utility affiliate selling power to its utility, nor is it supported by a long-term power purchase agreement with a utility. Caithness would instead sell power on a short- and mid-term basis to customers and on the spot-market. Power purchases by customers would be voluntary and all economic costs would be borne by Caithness.

The project would consist of two phases. The first phase would feature a 500-MW natural gas-fired, combined cycle power plant and on-site supporting infrastructure, including an administration building, warehouse storage, water treatment and storage facilities, cooling towers, water storage/evaporation ponds, gas conditioning equipment, and a new access road; a 500-kV switchyard with electrical equipment to accommodate an interconnection with the Mead-Phoenix Project 500-kV Transmission Line; a 16-inch high-pressure natural gas pipeline between the generating facility and at least one existing natural gas supply line; and ground water supply wells and pipeline system. The second phase would consist of an additional 220-MW combined-cycle power plant adjacent to the first phase of the power plant. Agricultural activities (such as orchard, row or field crops) using up to 200 gallons per minute (up to 300 acre feet per year) of ground water supplied by the project are proposed as part of the project by the Mohave County Economic Development Authority, Inc. (MCEDA) on private land in Section 7, Township 15 North, Range 12 West.

The generating facility and infrastructure would be built on private property owned by Caithness, in Section 5, Township 15 North, Range 12 West, about 4 miles southeast of Wikieup, and about 2 miles east of U.S. Highway 93 crossing the Big Sandy River. The ground water production wells, which would provide approximately 3,200 acre-feet (to a maximum of 4,850 acre-feet) of potable and cooling water annually to the generating facility from a deep (greater than 1,100 feet) aquifer, would be completed nearby on private property located in Section 7, Township 15 North, Range 12 West. A buried natural gas pipeline would bring high-pressure natural gas to the generating facility to fuel the gas-fired turbines from at least one natural gas transmission pipeline located about 36 miles north of the power plant site near Interstate 40. It would be constructed parallel, within and/or adjacent, to U.S. Highway 93 and Mohave County roads and utility easements. A pipeline routing parallel to the Mead-Phoenix Project 500-kV Transmission Line also is being considered. The pipeline would cross private and public lands administered by the BLM and the Arizona State Land Department.

on land near the proposed power plant site, and other associated facilities. See box on page 2 for additional information about the Big Sandy Energy Project.

Project timeline

The licensing and permitting for the project is now expected by Caithness to be completed in July 2001 when construction of the first phase would begin. Commercial operation is scheduled to begin in November 2002. The second phase is planned for completion in March 2004.

Public meeting results

A public information workshop was held Aug. 29 in Wikieup. BLM and Western described completed or ongoing environmental studies conducted since the May 3 scoping meeting, and provided meeting participants an opportunity to ask questions and discuss the project with BLM and Western's EIS preparation team. Thirty people attended, representing both the Wikieup community and other interested parties. Some questions asked at the meeting that could not be answered were listed for subsequent action by BLM and Western. Responses to these questions, as well as those questions received in response to the second newsletter, are on the insert to this newsletter.

The Hualapai Cultural Resource Program hosted a public information workshop on the Big Sandy Energy Project on Aug.30 in Peach Springs, Ariz. Nine people from the Hualapai community attended. The participants were briefed on project activities and the status of ongoing cultural resource studies.

Summaries of the Wikieup public meeting and the Hualapai public information workshop are available on Western's Big Sandy Energy Project web site (www.wapa.gov/interconn/intsandy.htm) or upon request.

Ground water testing

In early August BLM, USFWS, ADWR and URS hydrologists reviewed and discussed a proposed ground water well test protocol prepared by Caithness. Following the review and concurrence by agency hydrologists, a ground water production well step test was conducted on Aug. 28. The step test involved pumping water at known rates from the project ground water production well to stress the aquifer and determine the appropriate pumping rate for a constant rate flow test to follow. Caithness hydrologists presented the results of the step test to BLM, USFWS, ADWR and URS hydrologists at a meeting held Aug. 31 in Phoenix. Based on the results of this meeting, all hydrologists agreed on an appropriate pump rate and duration for the constant rate test. Beginning on Sept. 11, Caithness began pumping the project ground water production well at a constant rate of approx-

imately 1,950 gallons per minute while water level/pressure monitors in nearby observation wells (located in the lower, middle, and upper ground water aquifers of the Big Sandy valley, and Cofer Hot Springs) recorded any effects of the pumping. The constant-rate pump test ended on Sept. 22, a duration of 11 days, after agency and URS hydrologists agreed that no more useful data could be obtained from the test. Beginning with the termination of the pump test, the production and observation wells were monitored for an additional two weeks to determine the rates of recovery of the water levels/pressures. The results of the pumping test and recovery monitoring have been provided to agency and URS hydrologists, and will be used, together with other geological and hydrological studies, to determine the potential effects of the project on the ground water resource. The results of all of the project ground water investigations will be presented in the draft EIS for public review.

Endangered species consultation begins

BLM and Western initiated informal consultation with the USFWS regarding the project's potential effects to the endangered southwestern willow flycatcher at a meeting held in Phoenix on Aug.

About the Southwestern Willow Flycatcher

Southwestern willow flycatchers (see illustration by Troy Corman, AGFD) are small birds which breed in the southwestern United States (CA, NV, AZ, NM, CO, UT, TX) in the spring and early summer and spends the remaining two-thirds of the year in the semi-tropical areas of Central and South America. It is a grayish, olive green bird about 5.75 inches tall with few distinguishing characteristics. It looks very similar to other flycatchers. It hunts for insects in dense shrub and tree vegetation, known as "riparian" habitat, along rivers, streams, and other wetland areas. The southwestern willow flycatcher breeds in dense riparian habitats from sea level in Calif. to nearly 8,000 feet in Ariz. and southwestern Colo.

Declining southwestern willow flycatcher numbers have been attributed to the loss, modification, and fragmentation of riparian breeding habitat; the loss of wintering habitat in Central and South America; and attacks on its young ("brood parasitism") by the brown-headed cowbird. Habitat loss and degradation are caused by a variety of factors, including urban, recreational, and agricultural development; water diversion and ground water pumping; channelization;

31. Meeting participants reviewed the status of the southwestern willow flycatcher, and discussed USFWS concerns regarding the potential direct and indirect effects of the project on this species, and means to reduce the potential impacts of the project on the southwestern willow flycatcher. BLM and Western must comply with Section 7 of the Endangered Species Act of 1973 and initiate formal consultation with the USFWS if they determine that the proposed project could likely affect the southwestern willow flycatcher or another threatened or endangered species. BLM and Western will prepare a biological assessment addressing the potential impacts of the project on all endangered species before submitting a request to enter into formal consultation with the USFWS. The results of this biological assessment will be incorporated into the EIS. See sidebar for further information on the endangered southwestern willow flycatcher and why BLM and Western are addressing its presence.

Changes to the proposed project

Caithness originally proposed that the project would consume annually about 3,200 acre-feet of water, which would be pumped from ground water wells completed in a deep (greater than 1,100 feet)

dams; and livestock grazing. Fire is an increasing threat to flycatcher habitat, especially in dense saltcedar vegetation and where water diversions and/or ground water pumping has dried the riparian vegetation.

While the southwestern willow flycatcher certainly doesn't capture the imagination of the public like an eagle or falcon, the flycatcher is, like the eagle and falcon, a measure of the health of our environment. Where eagles and falcons warned us of the danger of harmful pesticides traveling throughout the food chain, southwestern willow flycatchers are letting us know that the health, and very existence, of our southwestern rivers is at risk. Flycatchers depend on vigorous, dense plant growth along wet, flowing streams. Plants and trees in these area depend on high ground water tables, periodic flooding, and wide floodplains. However, our southwestern rivers are being diverted and dammed, river channels are being incised and downcut, floodplains are being developed, and ground water aquifers are being pumped dry. These rare ribbons of water throughout the arid southwest are life to abundant wildlife and thriving metropolitan areas and small communities. The dramatic decline of flycatchers throughout their range is a reminder of the balance needed, and the fragile condition of, our southwestern streams.

aquifer on private property located in Section 7, Township 15 North, Range 12 West. Agricultural activities (such as orchard, row or field crops) associated with the project, but proposed by the Mohave County Economic Development Authority, Inc. (MCEDA) and located on this same private land, were to be provided waste cooling water from the project, which would otherwise be discharged to a lined pond and evaporated. Based upon additional testing of the ground water quality and further engineering of the power plant, Caithness has informed BLM and Western that although average annual water consumption is still expected to be 3,200 acre-feet, the maximum annual water consumption may be as high as 4,850 acre-feet of ground water. To minimize water consumption, Caithness also has decided to increase the number of cycles which the cooling water will make through the cooling towers, which means that the waste cooling water will not be suitable for the agricultural activities proposed for Section 7. Instead, Caithness proposes to make available a maximum of 200 gallons per minute of water from proposed ground water production wells for MCEDA's agricultural operations.

Ongoing public participation

Formal public scoping for the EIS closed on June 2, 2000. However, coordination and involvement with the public and appropriate Federal, state, local and tribal government agencies will continue, and comments on the proposed project and EIS will be encouraged throughout the NEPA process.

As part of this ongoing process, BLM and Western will provide for public review of, and conduct hearings on, the draft EIS once it is published. In addition, a workshop is planned after the release of the draft EIS and prior to the public hearing to provide interested stakeholders an opportunity to ask questions on the EIS analyses. After issuance of the final EIS, a public review of the final EIS during a 30-day waiting period will be encouraged, as well as public review of the independent BLM and Western Records of Decision.

Project Contacts

Project-related comments or questions should be directed to:

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Questions may be directed to Mr. Holt or Dr. Carey. You may also visit Western's Big Sandy Energy Project web site **(www.wapa.gov/interconn/intsandy.htm)** to obtain current information about project.

EIS Schedule

Milestone dates for the Big Sandy Energy Project EIS have been updated as follows:

Draft EIS Public review . . . . . January - February 2001

Public Workshop on EIS . . . . . January 2001

Draft EIS Public hearing . . . . . February 2001

Distribute Final EIS . . . . . May 2001

Records of Decision . . . . . June 2001

Visit www.wapa.gov/interconn/intsandy.htm to get ongoing information about the Big Sandy Project.

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